

AMENDMENT

New Docket Number:

Please change the Attorney Docket Number in this application to 0240us210.

In the Specification:

A. Please delete the paragraph entitled "Cross Reference to Related Applications" on page 1 and substitute therefor the following new paragraph:

C1
This application is a continuation-in-part application of and claims the benefit of and priority to U.S. Patent Application Serial No. 09/415,183, filed October 7, 1999, the disclosure of which is incorporated herein by reference in its entirety for all purposes.

B. Please delete the paragraph at page 3, lines 14-32 and substitute therefor the following new paragraph:

C2
The invention also includes an isolated or recombinant nucleic acid, comprising a polynucleotide sequence encoding a polypeptide, wherein the polypeptide comprises the amino acid sequence: CDLPQTHSLG-X₁₁-X₁₂-RA-X₁₅-X₁₆-LL-X₁₉-QM-X₂₂-R-X₂₄-S-X₂₆-FSCLKDR-X₃₄-DFG-X₃₈-P-X₄₀-EEFD-X₄₅-X₄₆-X₄₇-FQ-X₅₀-X₅₁-QAI-X₅₅-X₅₆-X₅₇-HE-X₆₀-X₆₁-QQTFN-X₆₇-FSTK-X₇₂-SS-X₇₅-X₇₆-W-X₇₈-X₇₉-X₈₀-LL-X₈₃-K-X₈₅-X₈₆-T-X₈₈-L-X₉₀-QQLN-X₉₅-LEACV-X₁₀₁-Q-X₁₀₃-V-X₁₀₅-X₁₀₆-X₁₀₇-X₁₀₈-TPLMN-X₁₁₄-D-X₁₁₆-ILAV-X₁₂₁-KY-X₁₂₄-QRITLYL-X₁₃₂-E-X₁₃₄-KYSPC-X₁₄₀-WEVVRAEIMRSFSFSTNLQKRLRRKE (SEQ ID NO:71), or a conservatively substituted variation thereof, where X₁₁ is N or D; X₁₂ is R, S, or K; X₁₅ is L or M; X₁₆ is I, M, or V; X₁₉ is A or G; X₂₂ is G or R; X₂₄ is I or T; X₂₆ is P or H; X₃₄ is H, Y or Q; X₃₈ is F or L; X₄₀ is Q or R; X₄₅ is G or S; X₄₆ is N or H; X₄₇ is Q or R; X₅₀ is K or R; X₅₁ is A or T; X₅₅ is S or F; X₅₆ is V or A; X₅₇ is L or F; X₆₀ is M or I; X₆₁ is I or M; X₆₇ is L or F; X₇₂ is D or N; X₇₅ is A or V; X₇₆ is A or T; X₇₈ is E or D; X₇₉ is Q or E; X₈₀ is S, R, T, or N; X₈₃ is E or D; X₈₅ is F or L; X₈₆ is S or Y; X₈₈ is E or G; X₉₀ is Y, H, N; X₉₅ is D, E, or N; X₁₀₁ is I, M, or V; X₁₀₃ is E or G; X₁₀₅ is G or W; X₁₀₆ is V or M; X₁₀₇ is E, G, or K; X₁₀₈ is E or G; X₁₁₄ is V, E, or G; X₁₁₆ is S or P; X₁₂₁ is K or R; X₁₂₄ is F or L; X₁₃₂ is T, I, or M; X₁₃₄ is K or R; and X₁₄₀ is A or S. Each of the single letters of this amino acid sequence

C2
represents a particular amino acid residue according to standard practice known to those of ordinary skill in the art.

C. Please delete the paragraph at page 22, line 22- page 23, line 10 and substitute therefor the following new paragraph:

C3
The invention also includes an isolated or recombinant nucleic acid comprising a polynucleotide sequence encoding a polypeptide, wherein the polypeptide comprises the amino acid sequence: CDLPQTHSLG-X₁₁-X₁₂-RA-X₁₅-X₁₆-LL-X₁₉-QM-X₂₂-R-X₂₄-S-X₂₆-FSCLKDR-X₃₄-DFG-X₃₈-P-X₄₀-EEFD-X₄₅-X₄₆-FQ-X₅₀-X₅₁-QAI-X₅₅-X₅₆-X₅₇-HE-X₆₀-X₆₁-QQTFN-X₆₇-FSTK-X₇₂-SS-X₇₅-X₇₆-W-X₇₈-X₇₉-X₈₀-LL-X₈₃-K-X₈₅-X₈₆-T-X₈₈-L-X₉₀-QQLN-X₉₅-LEACV-X₁₀₁-Q-X₁₀₃-V-X₁₀₅-X₁₀₆-X₁₀₇-X₁₀₈-TPLMN-X₁₁₄-D-X₁₁₆-ILAV-X₁₂₁-KY-X₁₂₄-QRITLYL-X₁₃₂-E-X₁₃₄-KYSPC-X₁₄₀-WEVVRAEIMRSFSFSTNLQKRLRRKE (SEQ ID NO:71), or a conservatively substituted variation thereof, where X₁₁ is N or D; X₁₂ is R, S, or K; X₁₅ is L or M; X₁₆ is I, M, or V; X₁₉ is A or G; X₂₂ is G or R; X₂₄ is I or T; X₂₆ is P or H; X₃₄ is H, Y or Q; X₃₈ is F or L; X₄₀ is Q or R; X₄₅ is G or S; X₄₆ is N or H; X₄₇ is Q or R; X₅₀ is K or R; X₅₁ is A or T; X₅₅ is S or F; X₅₆ is V or A; X₅₇ is L or F; X₆₀ is M or I; X₆₁ is I or M; X₆₇ is L or F; X₇₂ is D or N; X₇₅ is A or V; X₇₆ is A or T; X₇₈ is E or D; X₇₉ is Q or E; X₈₀ is S, R, T, or N; X₈₃ is E or D; X₈₅ is F or L; X₈₆ is S or Y; X₈₈ is E or G; X₉₀ is Y, H, N; X₉₅ is D, E, or N; X₁₀₁ is I, M, or V; X₁₀₃ is E or G; X₁₀₅ is G or W; X₁₀₆ is V or M; X₁₀₇ is E, G, or K; X₁₀₈ is E or G; X₁₁₄ is V, E, or G; X₁₁₆ is S or P; X₁₂₁ is K or R; X₁₂₄ is F or L; X₁₃₂ is T, I, or M; X₁₃₄ is K or R; and X₁₄₀ is A or S. Each of the single letters of this amino acid sequence represents a particular amino acid residue according to standard practice known to those of ordinary skill in the art. Such polypeptides having an antiproliferative activity in the human Daudi cell line-based assay (*e.g.*, at least about 8.3x10⁶ units/mg) and/or an antiviral activities in a human WISH cell/EMCV-based assay (at least about 2.1x10⁷ units/mg).

D. Please delete the paragraph at page 43, lines 8-17 and substitute therefor the following new paragraph:

In a further example, if four conservative substitutions were localized in the region corresponding to amino acid residues 141-166 of SEQ ID NO:36, examples of conservatively substituted variations of this region,

C4
WEVVR AEIMR SFSFS TNLQK RLRRKE include:

WEVVR SEIMR SFSYS TNLQR RLRRKD (SEQ ID NO:87) and

WELVR AEIVR SFSFS TNLNK RLRKKE (SEQ ID NO:88) and the like, in accordance with the conservative substitutions listed in Table 2 (in the above example, conservative substitutions are underlined). Listing of a protein sequence herein, in conjunction with the above substitution table, provides an express listing of all conservatively substituted proteins.

E. Please delete the paragraph at page 80, lines 23-29 and substitute therefor the following new paragraph:

As an example, if four conservative substitutions were localized in the subsequence corresponding to amino acids 141-166 of SEQ ID NO:71, examples of conservatively substituted variations of this subsequence,

C5
WEVVR AEIMR SFSFS TNLQK RLRRKE, include:

WEVVR SEIMR SFSYS TNLQR RLRRKD (SEQ ID NO:87) and

WELVR AEIVR SFSFS TNLNK RLRKKE (SEQ ID NO:88) and the like, where the conservative substitutions are underlined.

In accordance with 37 CFR §1.121 a marked up version of the above-amended paragraphs illustrating the changes introduced by the forgoing amendments are provided in **Appendix C**.